

SERVICE CONTROL UNIT

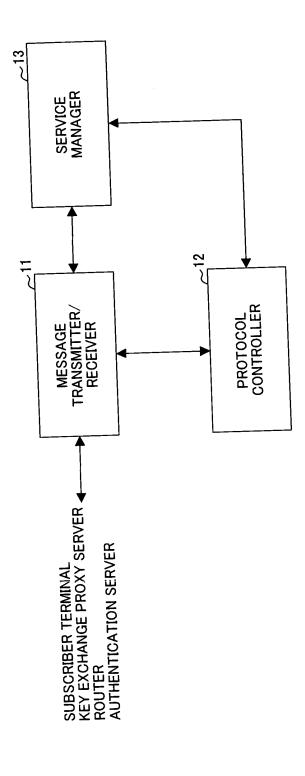
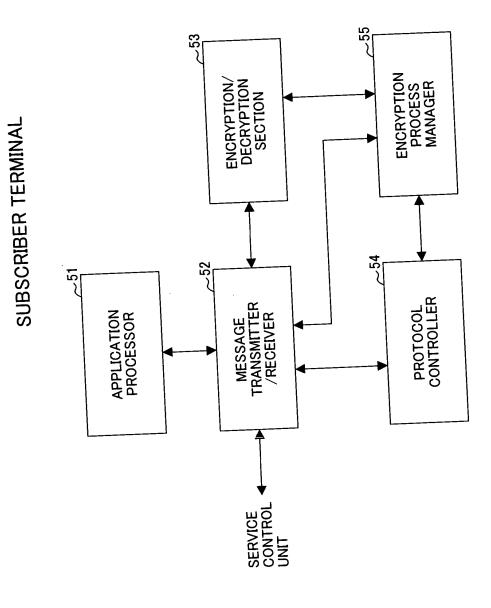


FIG. 3

SERVICE PROFILE

NAME	CONTENT	
SUBSCRIBER	TELEPHONE NUMBER	
	IAN	
IDENTIFICATION	AUTHENTICATION ENTRY NUMBER	
INFORMATION	•	
	•	
	•	
IPSec APPLICATION CONDITION 1	IP ADDRESS	
	PORT NUMBER	
IPSec APPLICATION CONDITION 2	IP ADDRESS	
	PORT NUMBER	
•	•	
	•	
•	•	



DATA RETAINED BY SUBSCRIBER TERMINAL

FIG. 5A

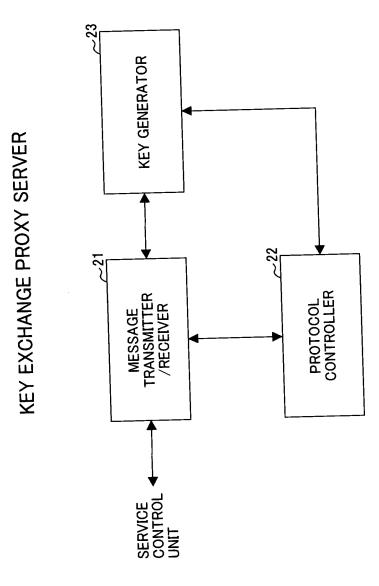
SPD

3PD		
NAME	CONTENT	
[PSec	IP ADDRESS	
APPLICATION CONDITION 1	PORT NUMBER	
IPSec APPLICATION CONDITION 2	IP ADDRESS	
	PORT NUMBER	
•		
	•	
•	•	

FIG. 5B

SAD

NAME	APPLICATION CONDITION	CONTENT
	IP ADDRESS	ENCRYPTION PROTOCOL
IPSec APPLICATION	IP ADDITEGO	KEY
CONDITION 1	PORT NUMBER	SPI
IPSec APPLICATION CONDITION 2	IP ADDRESS	ENCRYPTION PROTOCOL
	IP ADDICESS	KEY
	PORT NUMBER	SPI
		•
•	•	



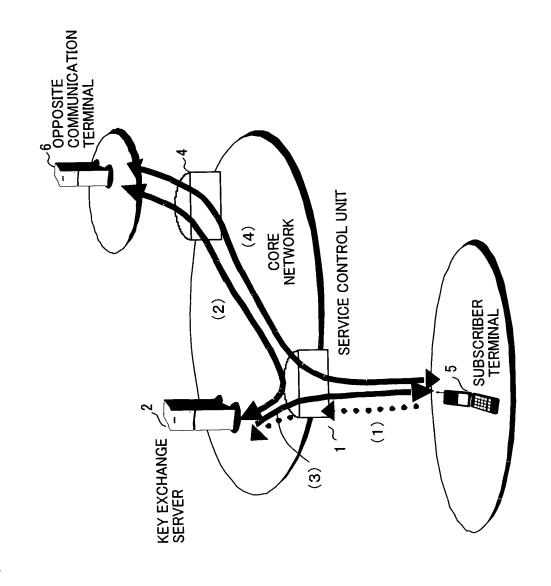


FIG. 8

SUBSCRIBER TERMINAL PROCESS SEQUENCE (COMMUNICATION START)

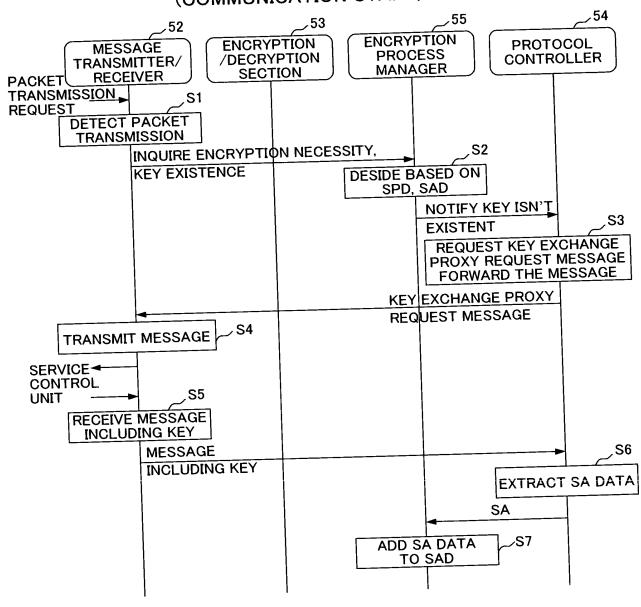
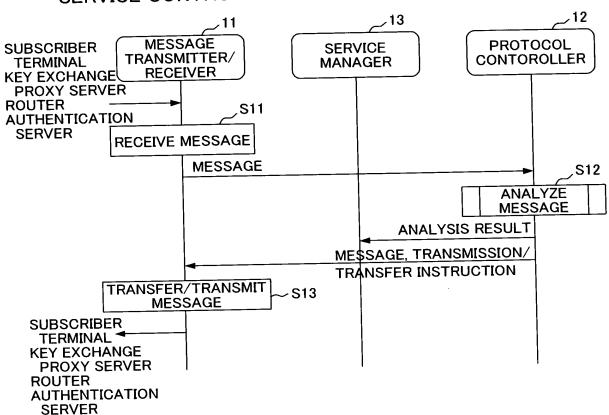


FIG. 9

SERVICE CONTROL UNIT PROCESS SEQUENCE



FLOWCHART OF MESSAGE ANALYSIS PROCESSING OF SERVICE CONTROL UNIT

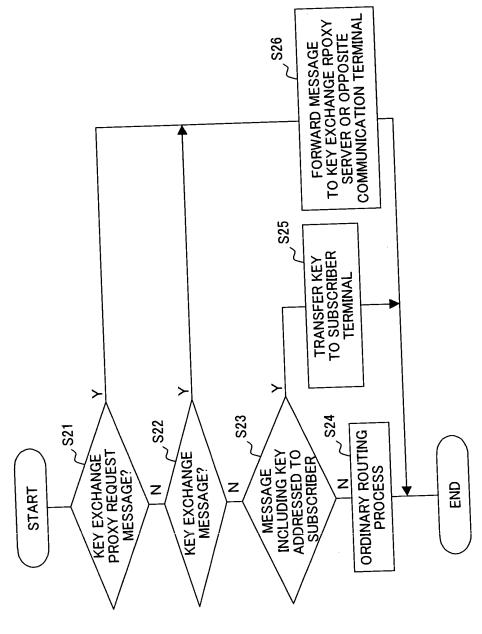


FIG. 11

KEY EXCHANGE PROXY SERVER PROCESS SEQUENCE 22رے **PROTOCOL MESSAGE KEY** CONTROLLER TRANSMITTER/ **GENERATOR** RECEIVER SERVICE CONTROL **S31** UNIT RECEIVE MESSAGE S32 **MESSAGE** ANALYZE MESSAGE KEY GENERATE **PERFORM** REQUEST ∠S33 KEY EXCHAGE KEY **PROCESS MESSAGE** TRANSMIT MESSAGE -S35 SERVICE → CONTROL UNIT

FIG. 12A

KEY EXCHANGE MESSAGE (KEY EXCHANGE PROXY REQUEST MESSAGE)

(SUBSCRIBER TERMINAL → SERVICE CONTROL UNIT)

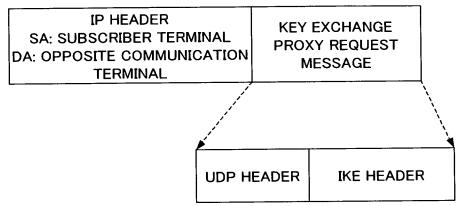


FIG. 12B

KEY EXCHANGE MESSAGE (KEY EXCHANGE PROXY REQUEST MESSAGE)

(SERVICE CONTROL UNIT → KEY EXCHANGE PROXY SERVER)

IP HEADER
SA: SERVICE CONTROL
UNIT
DA: KEY EXCHANGE
PROXY SERVER

IP HEADER
SA: SUBSCRIBER
TERMINAL
DA: OPPOSITE
COMMUNICATION
TERMINAL

IP HEADER
KEY EXCHANGE
PROXY REQUEST
MESSAGE

FIG. 13A

KEY EXCHANGE MESSAGE

(SERVICE CONTROL UNIT \rightarrow OPPOSITE COMMUNICATION TERMINAL)

IKE MESSAGE
SA: SUBSCRIBER TERMINAL
DA: OPPOSITE COMMUNICATION TERMINAL

FIG. 13B

KEY EXCHANGE MESSAGE

(OPPOSITE COMMUNICATION TERMINAL → SERVICE CONTROL UNIT)

IKE MESSAGE SA: OPPOSITE COMMUNICATION TERMINAL DA: SUBSCRIBER TERMINAL

FIG. 13C

KEY EXCHANGE MESSAGE

(SERVICE CONTROL UNIT \rightarrow KEY EXCHANGE PROXY SERVER)

IP HEADER SA: SERVICE CONTROL UNIT DA: KEY EXCHANGE PROXY SERVER IKE MESSAGE SA: OPPOSITE COMMUNICATION TERMINAL DA: SUBSCRIBER TERMINAL

FIG. 13D

KEY EXCHANGE MESSAGE

(KEY EXCHANGE PROXY SERVER \rightarrow SERVICE CONTROL UNIT)

IP HEADER
SA: KEY EXCHANGE
PROXY SERVER
DA: SERVICE CONTROL UNIT

IKE MESSAGE SA: SUBSCRIBER TERMINAL DA: OPPOSITE COMMUNICATION TERMINAL

FIG. 14A

KEY TRANSFER MESSAGE

(KEY EXCHANGE PROXY SERVER \rightarrow SERVICE CONTROL UNIT)

IP HEADER SA: KEY EXCHANGE PROXY SERVER DA: SERVICE CONTROL		
DA: SERVICE CONTROL		
UNIT		

IP HEADER
SA: OPPOSITE
COMMUNICATION
TERMINAL
DA: SUBSCRIBER
TERMINAL

KEY INFORMATION (SA)

FIG. 14B

KEY TRANSFER MESSAGE

(SERVICE CONTROL UNIT \rightarrow SUBSCRIBER TERMINAL)

IP HEADER SA: SERVICE CONTROL UNIT DA: SUBSCRIBER TERMINAL	IP HEADER SA: OPPOSITE COMMUNICATION TERMINAL DA: SUBSCRIBER TERMINAL	KEY INFORMATION (SA)
--	---	----------------------------

FIG. 15
SUBSCRIBER TERMINAL PROCESS SEQUENCE
(PACKET TRANSMISSION/RECEPTION)

